

**VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY (VSSUT), ODISHA**  
**Odd Mid Semester Examination for Academic Session 2024-25**

COURSE NAME: BTech

SEMESTER: 3<sup>rd</sup>

BRANCH NAME: EE, EEE, CSE, IT, ETC

SUBJECT NAME: Engineering Economics

FULL MARKS: 30

TIME: 90 Minutes

**Answer All Questions.**

The figures in the right hand margin indicate Marks. Symbols carry usual meaning.

Q1. Answer all Questions. [2 × 3]

- a) What factors can cause a shift in the supply curve? - CO1
- b) What is Giffen paradox and how is it related to law of demand? - CO2
- c) State the two conditions for consumer's equilibrium - CO3

Q2. [8]

- a) Discuss the relationship between price elasticity of demand and total expenditure. - CO1

OR

- b) Evaluate the importance of including the government and foreign sectors in the circular flow of income models. How does the transition from a two-sector to a four-sector model better capture the complexities of a modern economy? - CO1

Q3. [8]

- a) Explain the law of diminishing marginal utility using a suitable example and state its role in consumer decision-making. - CO2

OR

- b) Explain the steps to construct a Neumann-Morgenstern (NM) utility index. Create NM utility index for a risky situation with a suitable example - CO2

Q4. [8]

- a) How do indifference curve reflects consumer preferences? How do changes in income or price impact the consumer equilibrium? - CO3

OR

- b) How do the differences between GDP and GNP affect the assessment of an economy's health? if national income at factor cost is Rs. 1000 crores, indirect taxes are Rs.200 crores, while subsidies are Rs. 50 crores and capital consumption allowance Rs. 100 crores, what is the value of GNP? - CO3